WHAT IS CLAIMED IS:

1. A coordinates detection apparatus comprising:

a display surface;

two optical units provided at different positions on the border of said display surface, each of said optical unit having a light emitter, a diffusion lens, a read lens, and a light-receiver; and

a recursive reflection section located at the border of said display surface and which reflects a light emitted from said light-emitter and diffused by said diffusion lens in a fan form towards said light-emitter;

wherein said light-emitter and said light-receiver are so located that their optic axes are coincident,

wherein the coordinates of a point specified on said display surface are detected by focusing the light reflected on said reflection section with said read lens, receiving the reflected light with said light-receiver, and determining the position where reception of the light is hindered.

2. The coordinates detection apparatus according to claim 1, wherein a half mirror is located on the optic axes of said light-emitter and said light-receiver.

3. The coordinates detection apparatus according to claim 2, wherein said light-emitter, said diffusion lens, said read

lens, said light-receiver, and said half mirror are mounted in a frame.

4. The coordinates detection apparatus according to claim 1, wherein the center of the light diffused by said diffusion lens and a principal point of said read lens are coincident to each other.

5. The coordinates detection apparatus according to claim 1, wherein said optical unit has a mechanism which optically adjusts said light-emitter and said light-receiver.

6. The coordinates detection apparatus according to claim 1, wherein said optical unit is located at a position close to said display surface.

7. The coordinates detection apparatus according to claim 1, further comprising:

a mounting position adjustment mechanism which adjust a mounting position of said optical unit.

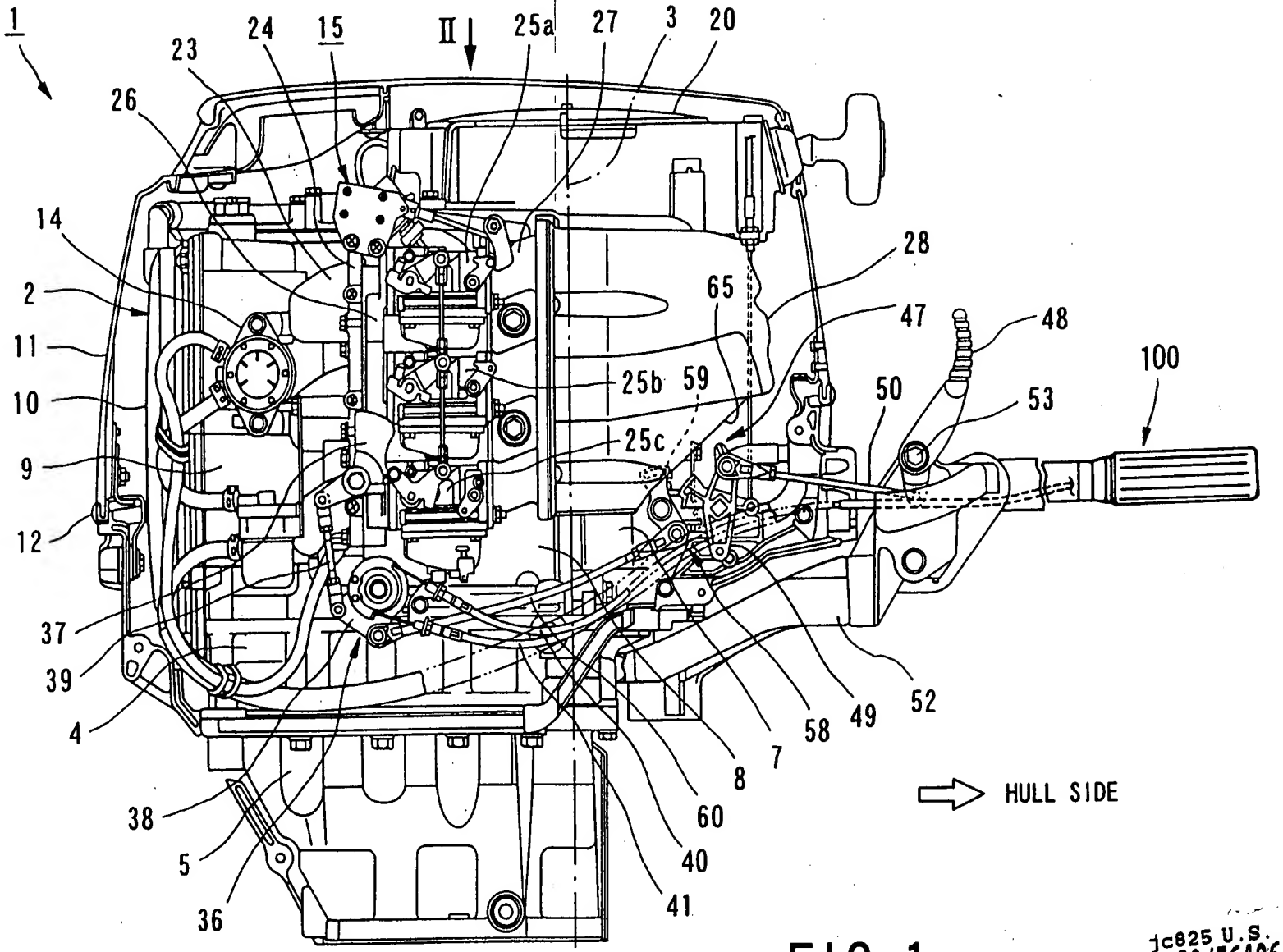
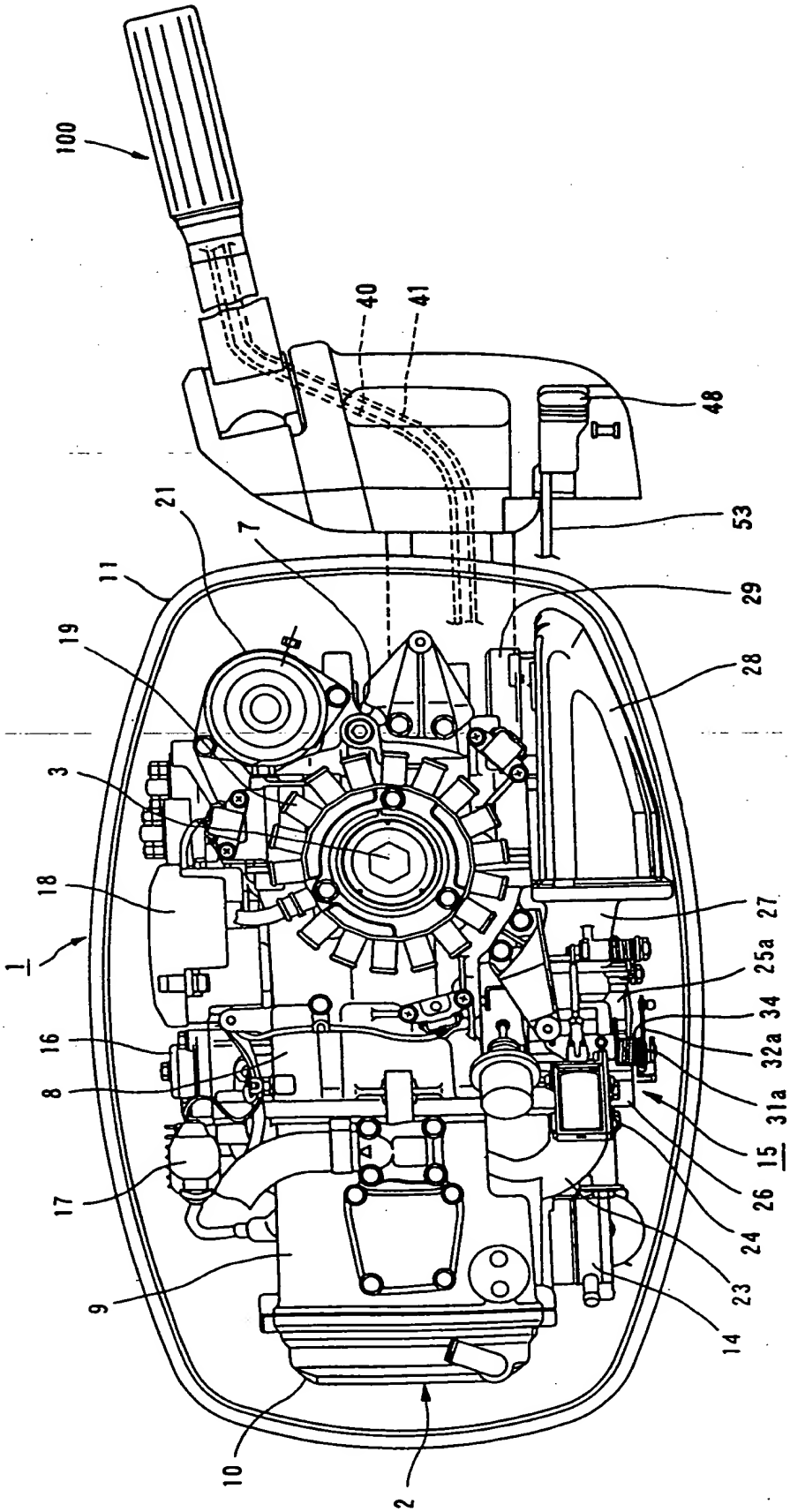


FIG. 1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7
11
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19
28
3
18
1
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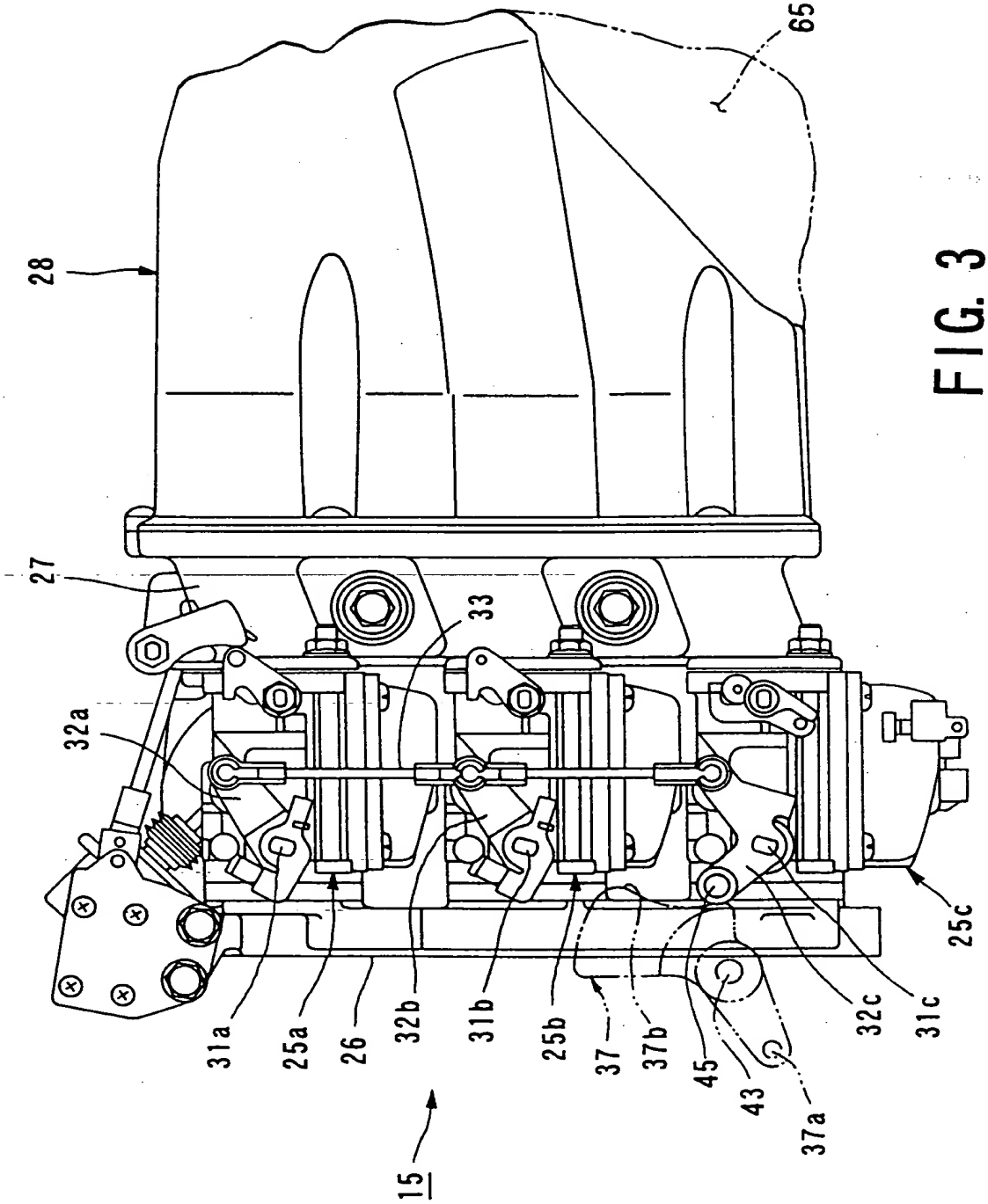
25a
34
16
32a
8
31a
15
17
26
24
9
23
14
10
2

FIG. 2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32a
31a
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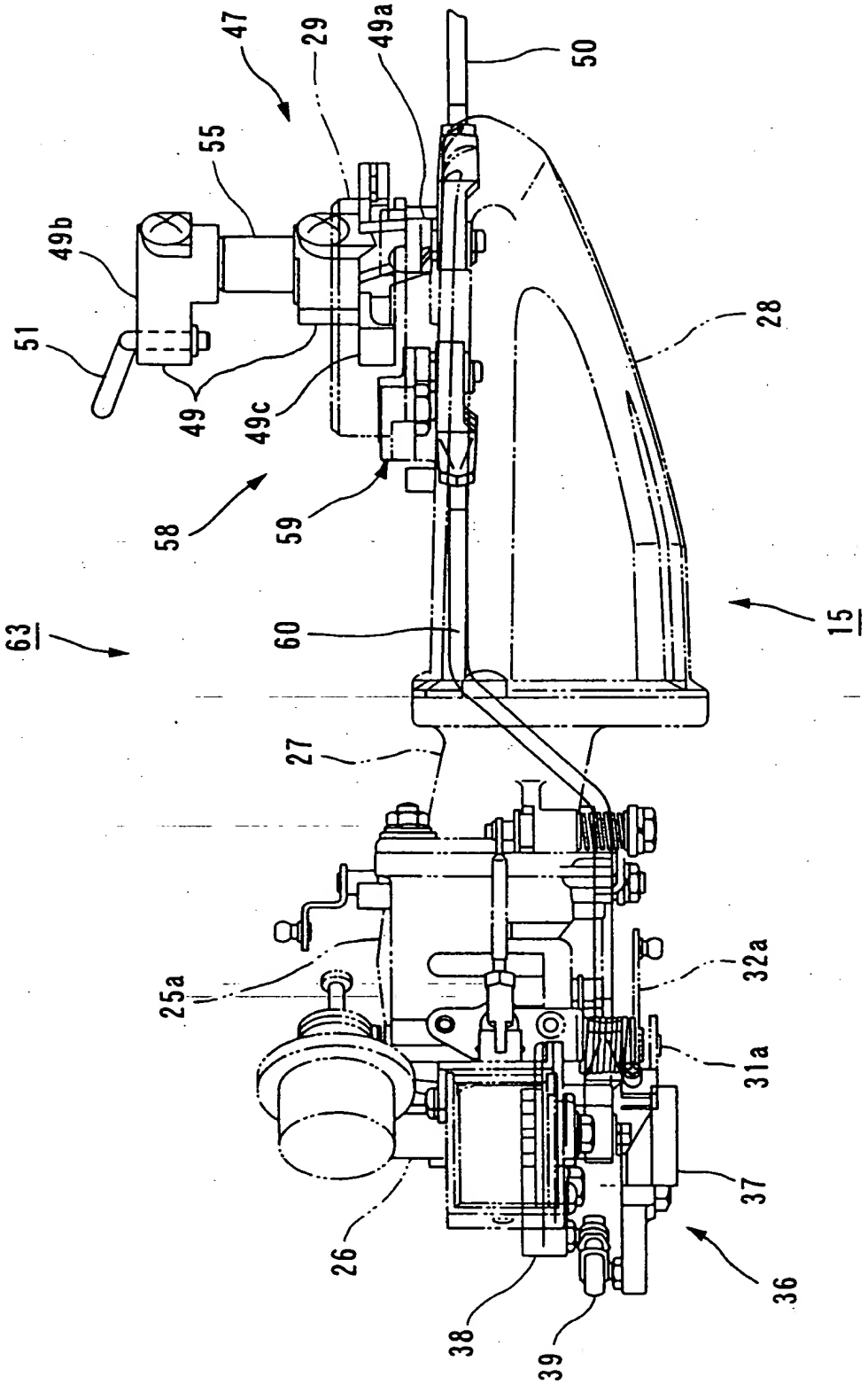
32b
31b
25b
37
37b
45
43
37a
32c
31c
25c
15

FIG. 3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50
55
49b
51
49
49c
28
58
59
63
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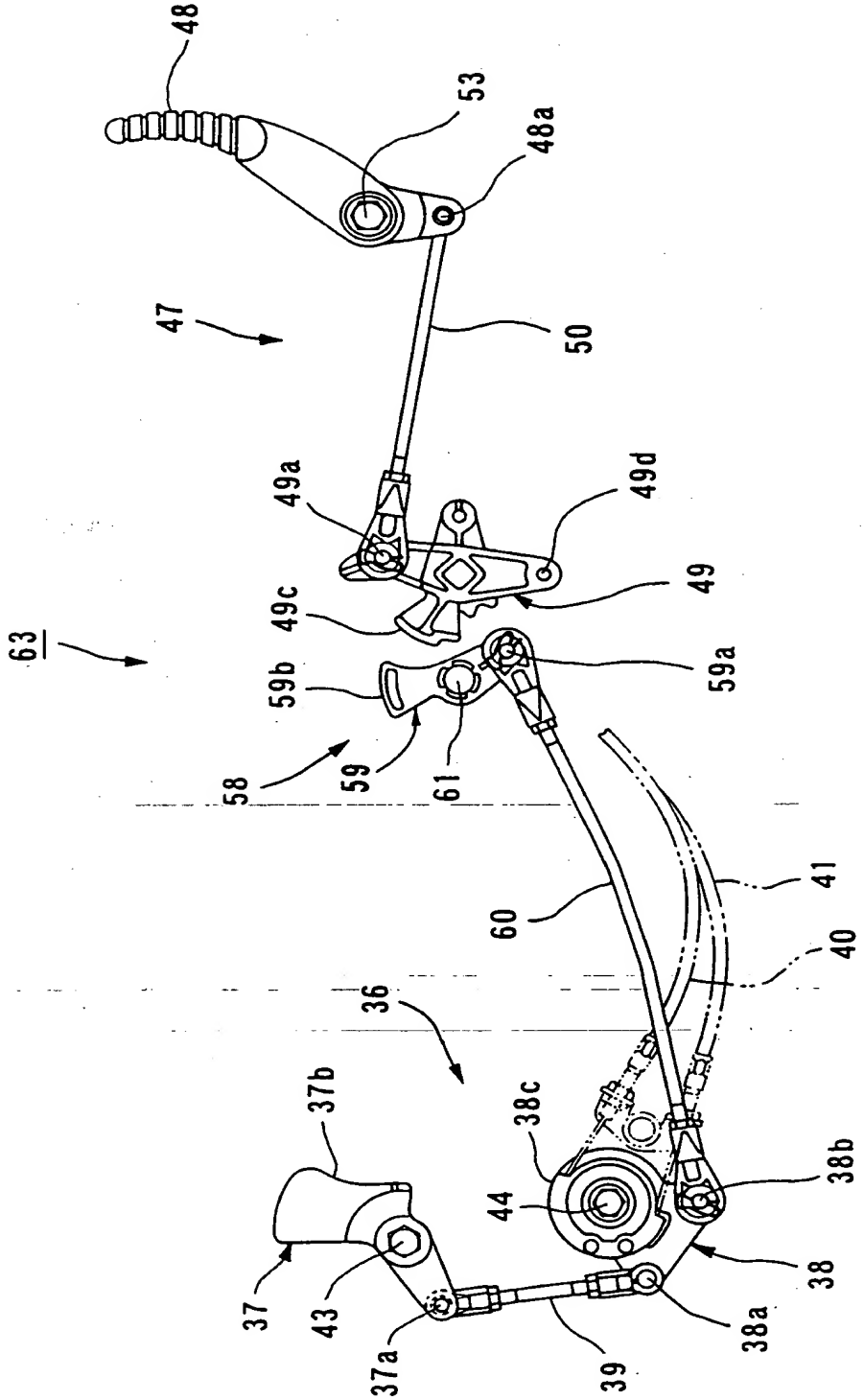
32a
31a
37
26
36
38
39

FIG. 4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59a
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37b
38c
38b
44
38
37
43
38a
37a
39

FIG. 5

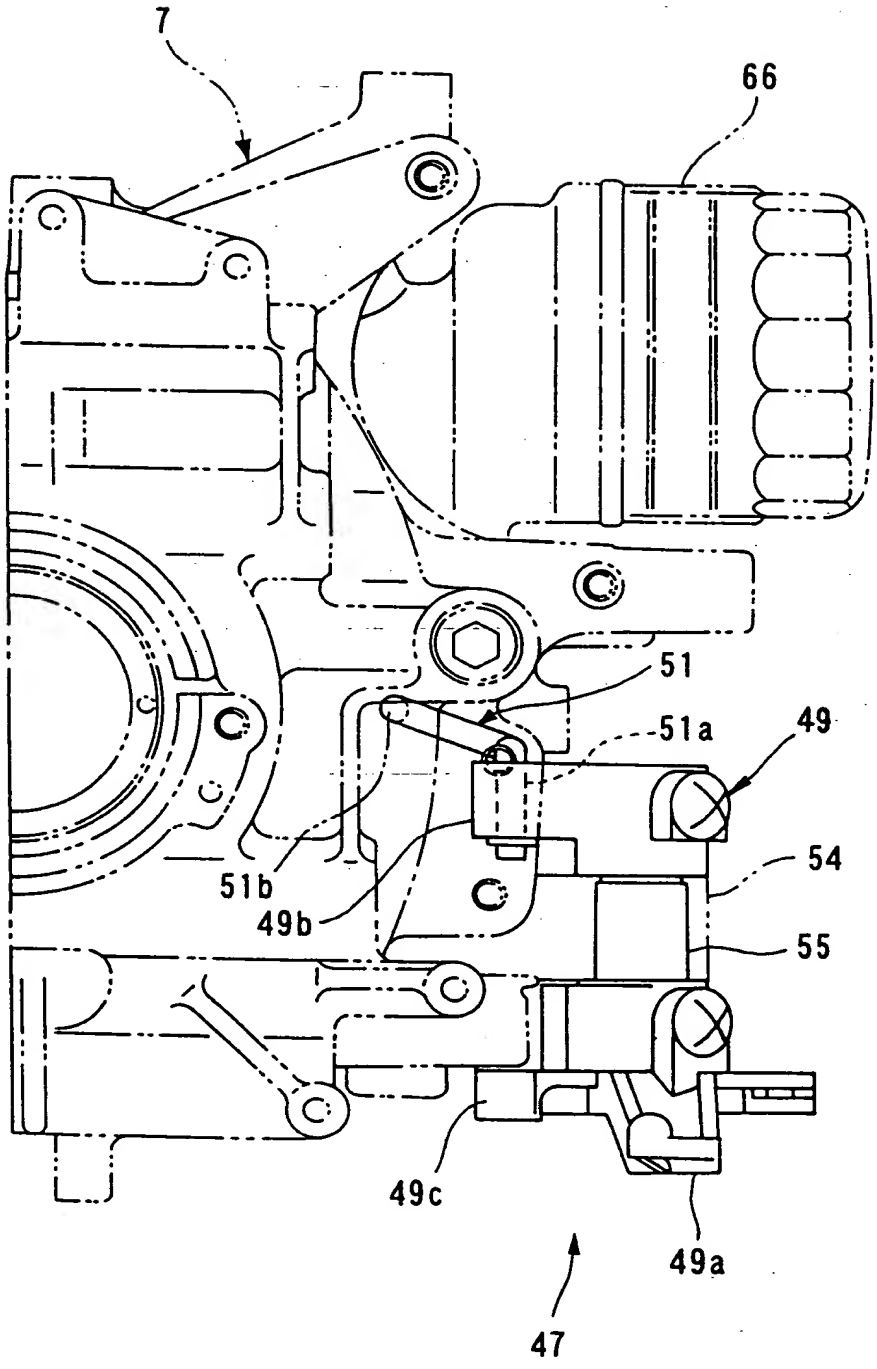

FIG. 6